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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------------------------------------------------------------------|-------------|----------------------|-----------------------------------|------------------------|
| 10/726,686 | 12/04/2003 | Hidemitsu Asano | 106298.01 | 5666 |
| 25944 7590 12/26/2007 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850 | | | EXAMINER RAO, ANAND SHASHIKANT | |
| | | | ART UNIT 2621 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/726,686 | Applicant(s) ASANO ET AL. | |
| | Examiner Andy S. Rao | Art Unit 2621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/7/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 8 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A). The Examiner notes that "storing..." does not specify how the instructions are (a) associated with the medium, or (b) the nature of instructions. Data structures not claimed as embodied (or encoded with or embedded with) in a storage or computer readable medium are descriptive material per se, and are not statutory, *Warmerdam*, 33 F.3d at 1361, 31, USPQ2d at 1760). Specifying the association in the manner as discussed herein would sufficiently address the first condition. Similarly, computer programs claimed as computer listings, instructions, or codes are just the descriptions, expressions, of the program are not "physical things". They have neither computer components nor statutory processes, as they are not "acts" being performed. In contrast, a claimed "...computer readable medium encoded with a computer program..." is a computer element which defines structural and function interrelationships between the computer

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program and the rest of the computer, and is statutory, *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Specifying the instructions as a “computer program” would sufficiently address the second condition, *Interim Guidelines, Annex IV (Section a)*.

B). Lastly, the computer program as claimed doesn't isn't properly associated with the operation. It is quite possible that the computer program may be an unrelated sub-routine or a simple commence instruction which then causes the computer to execute the operation that could be self-resident, and not encoded on the medium. The Examiner suggests that the computer program be more directly associated with the operation, *Interim Guidelines, Annex IV (Section b)*.

Corrections to the claim and supporting specification are required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Seng.

Seng disclose a measuring method (Seng: column 2, lines 50-60), comprising the steps of: shooting an object to be measured (Seng: column 4, lines 49-51); combining together a plurality of images obtained by the shooting to generate a combined image of the object (Seng: column 7, lines 10-15); designating a measuring region of the generated combined image; creating a measurement path measuring program by inputting parameters for creating a

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measurement path (Seng: column 7, lines 5-10); and measuring the designated measuring region along the measurement path according to the created measurement path measuring program (Seng: column 6, lines 25-37), as in claim 1.

Regarding claim 3, Seng discloses wherein said step of shooting the object comprises shooting part of the object with a camera attached to a measuring tool for use in measuring the object, while moving the camera and the object relative to each other (Seng: column 6, lines 25-30), as in the claim.

Regarding claims 4-5, Seng discloses a step of displaying the combined image (Seng: column 7, lines 10-15), and wherein said step of designating the measuring region comprises designating the measuring region by painting a specific color on the displayed image of the object and displaying the created measurement path in a manner being superimposed on the displayed combined image (Seng: column 5, lines 15-30), as in the claims.

Regarding claim 6, Seng discloses further comprising a step of setting a range of image pickup by the camera by designating a starting point and a terminating point with respect to the object for shooting (Seng: column 6, lines 20-24), as in the claim.

Seng discloses a measuring system (Seng: figure 1) comprising: shooting means for shooting an object to be measured (Seng: column 4, lines 49-51); image generating means for combining together a plurality of images obtained by the shooting to generate a combined image of the object (Seng: column 7, lines 10-15); designating means for designating a measuring region of the generated combined image (Seng: column 7, lines 5-10); program creating means for creating a measurement path measuring program by inputting parameters for creating a measurement path (Seng: column 6, lines 55-65); and measuring means for measuring the

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designated measuring region along the measurement path according to the created measurement path measuring program (Seng: column 6, lines 25-37), as in claim 7.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seng in view of Sachs et al., (hereinafter referred to as "Sachs").

Seng disclose a measuring method (Seng: column 2, lines 50-60), comprising the steps of: shooting an object to be measured (Seng: column 4, lines 49-51); combining together a plurality of images obtained by the shooting to generate a combined image of the object (Seng: column 7, lines 10-15); designating a measuring region of the generated combined image; creating a measurement path measuring program by inputting parameters for creating a measurement path (Seng: column 7, lines 5-10); and measuring the designated measuring region along the measurement path according to the created measurement path measuring program (Seng: column 6, lines 25-37), wherein said step of creating the measurement path measuring program comprises inputting at least one first parameter required for measurement in X-axis and Y-axis directions (Seng: column 7, lines 17-24) to create the measurement path measuring program (Seng: column 5, lines 28-32), , as in claim 2. However, Seng fails to disclose inputting

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at least one second parameter required for measurement in a Z-axis direction to finalize the measurement path measuring program as in the claim. Sacks discloses a measuring method for accurately measuring object surface gradations (Sacks: column 8, lines 50-65) along the Z-axis (Sacks: column 9, lines 25-45) using Z-axis position parameters (Sacks: column 10, lines 25-62) in order arrive at the need inventions without manual manipulation of the object or object stage to be measured (Sacks: column 12, lines 1-10). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the Sack Z-axis parameter based measurement step into the Seng method in order to have the Seng method be able to accurately account for surface features in the Z-axis such as chip warping (Seng: figure 5). The Seng method, now incorporating the Sacks Z-axis parameter based measurement, has all of the features of claim 2.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seng in view of Sachs et al., (hereinafter referred to as "Sacks").

Seng disclose a measuring method (Seng: column 2, lines 50-60), comprising the steps of: shooting an object to be measured (Seng: column 4, lines 49-51); combining together a plurality of images obtained by the shooting to generate a combined image of the object (Seng: column 7, lines 10-15); designating a measuring region of the generated combined image; creating a measurement path measuring program by inputting parameters for creating a measurement path (Seng: column 7, lines 5-10); and measuring the designated measuring region along the measurement path according to the created measurement path measuring program (Seng: column 6, lines 25-37), as implemented on a computer (Seng: column 5, lines 5-10) as in claim 8. However, Seng fails to disclose that the method is resident on a computer readable

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medium encoded with instructions comprising a program which when executed by a computer cause the computer to execute the program and perform the method, as in the claim.

Vachtsevanos discloses an inspection system with discloses the use of measurement method as software modules (Vachtsevanos: column 12, lines 53-61) in the form of a computer readable medium (Vachtsevanos: column 28, lines 38-45) as a means to minimize processing time in sensor overlays (Vachtsevanos: column 12, lines 62-67). Accordingly, given this teaching it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the teaching of the Vachtsevanos reference's use of software implemented methods as stored on a computer readable medium with the computer implemented method of Seng in order to minimize the processing time of the Seng method as it constructs its overlays. The Seng method, now implemented as software modules as embedded on a computer readable medium, has all of the features of claim 8.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

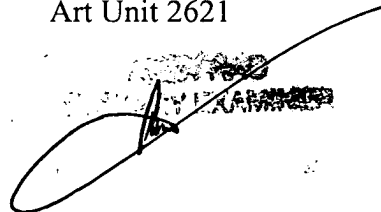
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
December 20, 2007

A handwritten signature in black ink, appearing to read 'ASR', is written over a rectangular stamp. The signature is stylized with a large loop at the end. The stamp is partially obscured by the signature.